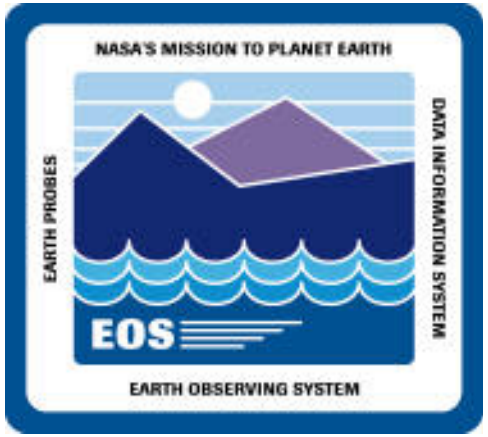

Remote Science Software Integration and Test

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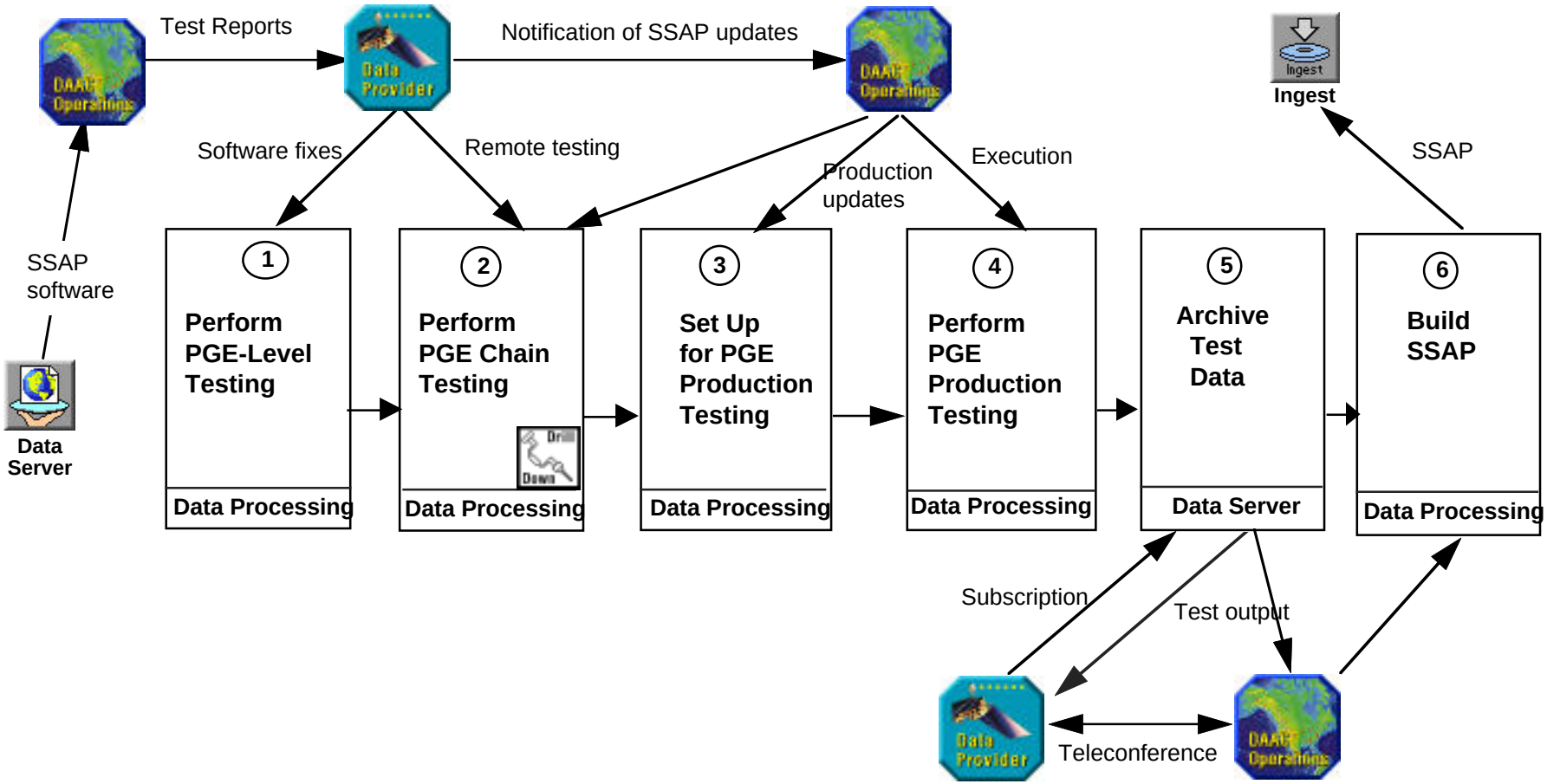
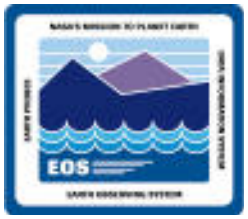
30 October 1995

Science Software Integration & Test

Functional Flow



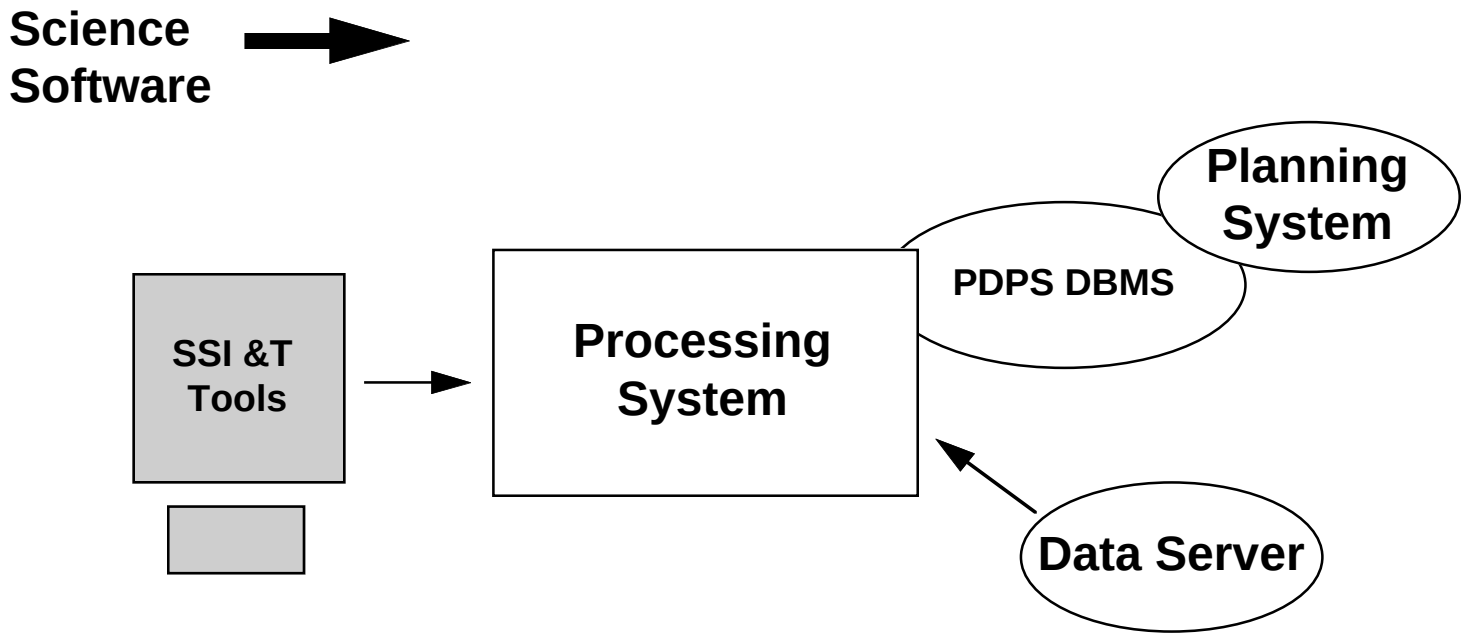
Science Software Integration and Test Tools



Overview

- Local (DAAC) and remote (SCF) access will be available.
- Provides tools which enable integration of science software into the ECS production system.
- Integration will be done in the production system environment, i.e. will use same software and hardware components as the operational system.
- Consists of the SDP toolkit with DAAC extensions, planning and data processing user interfaces, test and execution analysis tools.

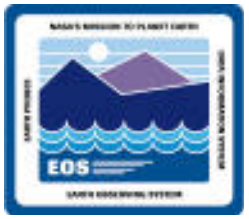
SSI&T Context



- Front end access tools
- SSI&T manager GUI
- Process deliveries
- Manage I&T process

- Production System HW & SW
- Allocated to SSI&T by DAAC

Remote Access Methods



Drivers:

- **Reduces travel time.**
- **Allows ITs to fine tune delivery package prior to onsite SSI & T.**

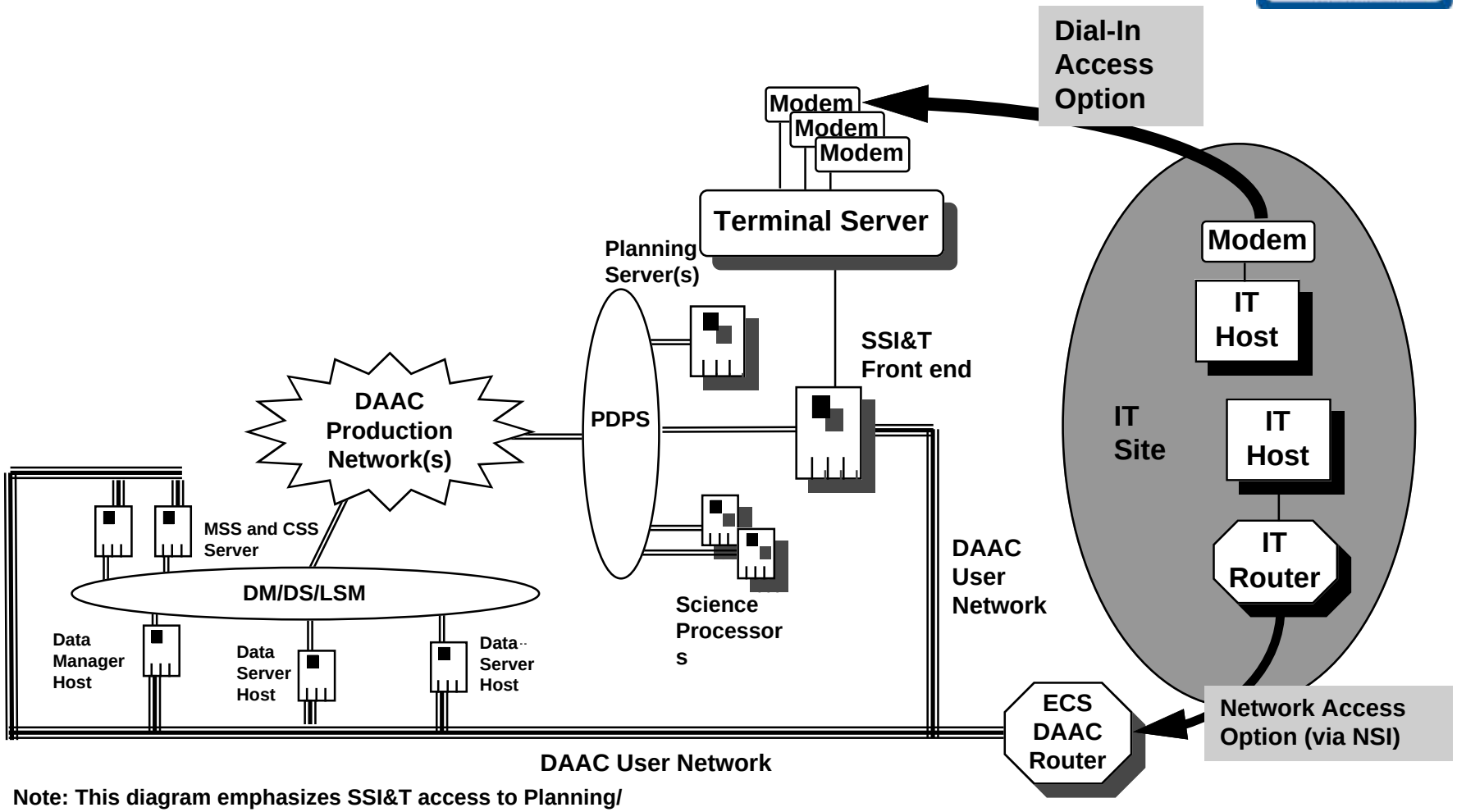
SCF Configuration #1: Dial-up access from SCF to DAAC.

- **Provides X11 access over switched circuits.**
- **Break-in potential is very remote.**
- **Requires 28.8 kbs modems and a terminal server.**

SCF Configuration #2: Firewall at SCF

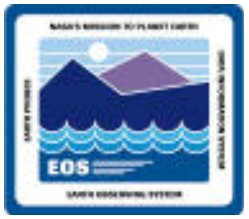
- **Dedicated LAN at SCF behind a router.**
- **Provides X11 access over router; prohibits other X11 connections.**
- **Communication is over open NSI / internet circuits.**

Remote SSI&T Access: Network Architecture



Note: This diagram emphasizes SSI&T access to Planning/ Scheduling hosts, so some subsystems and DAAC networks are not shown for clarity.

Remote Science Software I&T Capabilities



Ir1

- Ingest software and test data from SCF and verify contents.
- Compile and build executables.
- Populate production system DB with process control information.
- Test execution of single PGEs and chains of PGEs.
- Collect resource utilization and performance statistics.
- Examine test run outputs and compare with SCF results.

Release A adds

- Create and execute production requests via planning system.

Release B adds

- Provide tools to access instrument team delivery package, view and add to contents.
- Q/A and metadata insertion.

Operator Access GUIs for SSI&T

PGE Profile Editor GUI

- Input PGE information
- Set PGE activation rules
- Input process control
- Populate PDPS DB

Data Processing Request Editor & Execution GUIs

- Execute a single PGE
- Suspend/resume execution
- AutoSys access

Production Request Editor & Execution GUIs

- Specify PGE sequences
- Create, edit, run requests